

Ref: 8HWM-SR

SAND CREEK INDUSTRIAL SUPERFUND SITE

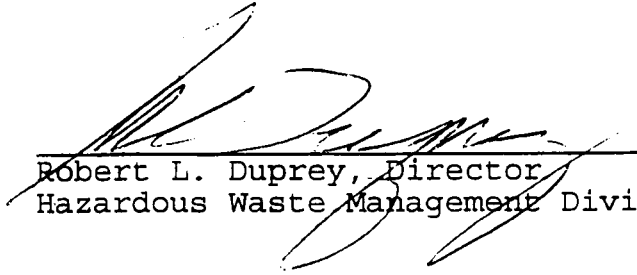
FIVE-YEAR REVIEW REPORT

PREPARED

BY

REGION VIII

U.S. ENVIRONMENTAL PROTECTION AGENCY


Robert L. Duprey, Director
Hazardous Waste Management Division


Date

TABLE OF CONTENTS

1.0	INTRODUCTION	Page 1
2.0	SITE BACKGROUND	Page 1
2.1	Location	
2.2	Land Use	
2.3	History of Contamination Sources	
2.4	Site-Wide Remedial Investigation	
2.5	Division of Site into Operable Units	
2.6	Additional Site Investigations	
3.0	REMEDIAL OBJECTIVES	Page 4
4.0	RESPONSE ACTIONS	Page 6
4.1	Operable Unit 1 (OU 1)	
4.2	Operable Unit 2 (OU 2)	
4.3	Operable Units 3/6 (OUs 3/6)	
4.4	Operable Unit 4 (OU 4)	
4.5	Operable Unit 5 (OU 5)	
4.6	Pre-Final Inspection	
5.0	SUMMARY OF FIVE-YEAR REVIEW	Page 10
5.1	Document Review	
5.2	ARAR Review	
5.3	Site Visit and Interviews	
5.3.1	Visual Site Inspection	
5.3.2	Community and Local Interviews	
6.0	RECOMMENDATIONS	Page 14
7.0	STATEMENT OF PROTECTIVENESS	Page 15
8.0	NEXT FIVE-YEAR REVIEW -- SCHEDULE	Page 15

FIGURES

Figure 1: Vicinity Map -- Sand Creek Industrial Superfund Site

TABLES

Table 1: Location and Description of Sand Creek Operable Units
Table 2: Decision Documents for Sand Creek Industrial Superfund Site

1.0 INTRODUCTION

Region VIII of the U.S. Environmental Protection Agency (EPA) has conducted a Five Year Review of the Sand Creek Industrial Superfund Site (Site) and prepared this report under requirements of Section 121(c) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, and Section 300.430 (f) (4) (ii) of the National Contingency Plan (NCP). It is a statutory, Type I review which is applicable to sites at which remedial construction is complete.

The purpose of a five-year review is to ensure that remedial actions (RAs) remain protective of public health and the environment and are functioning as designed. If the review determines that the remedies are no longer protective, appropriate action to correct the remedies may be initiated. Deletion of a site from the National Priorities List (NPL) does not affect the need for five-year reviews or prevent restoring the site to the NPL without application of the Hazard Ranking System (HRS).

A five-year review is required because hazardous substances remain on-Site which prevent unlimited access and unrestricted use of the Site. Five-year reviews must be completed no less often than every five years after initiation of remedial action (RA) at the site. This Five-Year Review for the Sand Creek Site was triggered by RA initiation at Operable Unit 1 (OU1) on September 25, 1990.

2.0 SITE BACKGROUND

2.1 Location

The Sand Creek Site is located approximately 5 miles northeast of downtown Denver, Colorado in a heavily industrial area. Refer to Figure 1 for a Vicinity Map of the Site. The Site resides partly within the City of Denver in Denver County, and partly within Commerce City in Adams County. It occupies about 550 acres of which approximately 300 acres comprises the area affected by remediation efforts. The study area is bounded on the north by Sand Creek, on the south by 48th Avenue, and on the east by Ivy Street and the eastern extent of the landfill. The western boundary is approximated by Dahlia Street, Colorado Boulevard and Vasquez Boulevard (Figure 1). The Sand Creek Site is located in the vicinity of several other Superfund sites, including Rocky Mountain Arsenal, Chemical Sales Company, Broderick Wood Products, and Woodbury Chemical Company.

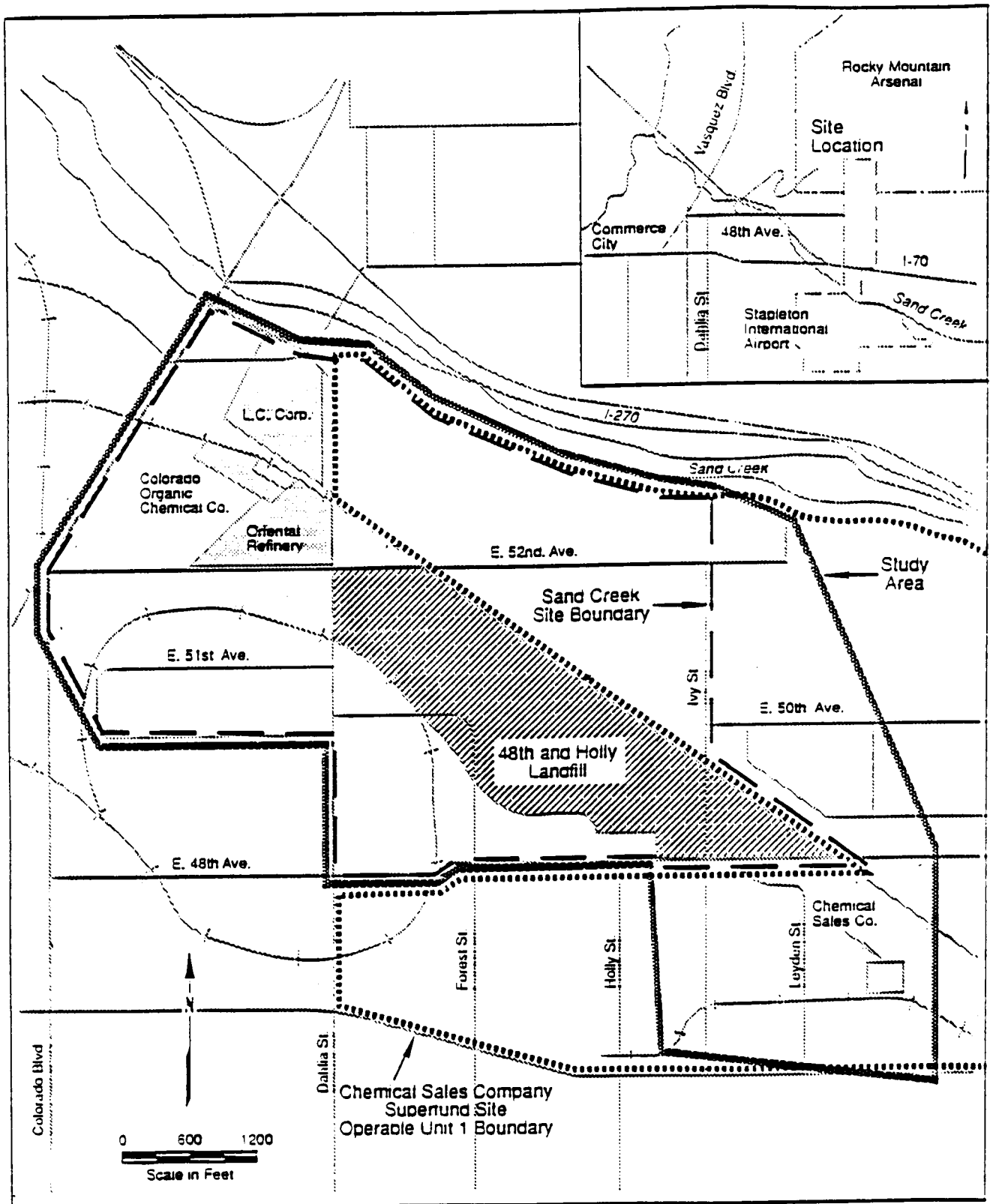


Figure 1: Vicinity Map -- Sand Creek Industrial Superfund Site

2.2 Land Use

Land use near the Site is primarily industrial and includes trucking firms, petroleum refining operations, chemical production and supply companies, warehouses, and small businesses. The Site and properties adjacent to the Site are zoned for light and heavy industrial uses. Fifteen residences, approximately 25 people, are located within a one-mile radius of the Site. The daytime population reaches several hundred because of the local businesses and industrial nature of the area.

2.3 History of Contamination Sources

Four sources of contamination (all currently inactive) are known at the Site: the **Colorado Organic Chemical Company (COC)** property, the **L-C Corporation (LCC)** property, the **Oriental Refinery** property, and the **48th and Holly Landfill (Landfill)**.

COC manufactured pesticides beginning in the 1960s and intermittently through 1984. There was a serious fire at the COC property in 1968. In 1974 the Tri-County District Health Department cited COC for unsatisfactory waste practices and unsatisfactory worker safety conditions.

The LCC property has been used for industrial purposes since 1948. In 1968 LCC contracted with Shell Chemical Company to use the property for storage and neutralization of spent acidic wastes from Shell's herbicide chemical plant at the Rocky Mountain Arsenal. In 1974 livestock that strayed onto the property contracted severe chemical burns from contact with the acid pits.

The Oriental Refinery property was the site of a fire in 1955 which resulted in the release of approximately 48,000 gallons of refined petroleum products.

At the Landfill, waste disposal operations were conducted between 1968 and 1975; demolition and domestic refuse were accepted. In 1977 two explosions of combustible gas, which killed two men and injured five others, were traced to the migration of methane gas from the Landfill.

The Colorado Department of Public Health and the Environment (CDPHE), formerly known as the Colorado Department of Health (CDH), and a variety of local agencies began intensive studies of the Site contamination about the mid-1970s. EPA involvement began around 1980. The Site was designated as a Superfund site and proposed for inclusion on the National Priorities List (NPL) on December 30, 1982. The final date for NPL listing was September 8, 1983.

2.4 Site-Wide Remedial Investigation (RI)

A *Site-Wide Remedial Investigation (RI)/Site Characterization Report* for the Sand Creek Industrial Superfund Site was completed

on March 4, 1988. Sampling and analyses in 1987 detected more than 75 compounds in the Site's soil, groundwater, and surface water. Of the 75 compounds initially detected, 20 were designated as contaminants of concern. Contaminants of concern included volatile organic compounds (VOCs), pesticides, and heavy metals.

2.5 Division of Site into Operable Units

Eventually, because of the complex nature of the Site, it was divided into six study regions known as Operable Units (OUs). The OUs are described in Table 1.

Operable units 1, 2, 4, and 5 are Fund lead, meaning that the cost of cleanup is being paid by the Federal "Superfund" (to which the State of Colorado provides a cost-share). Operable units 3 and 6 are Potentially Responsible Party (PRP) lead, meaning that the cleanup is being funded by private sources.

Table 1: Location and Description of Sand Creek Operable Units

OU	Location	Description
#1	COC Property	Contaminated Buildings and Deep Soils
#2	LCC Property	Acid Pits
#3	Landfill	Soils, Groundwater, Surface Water
#4	Groundwater	Site-Wide
#5	COC Property	Surface and Shallow Soils
#6	Landfill	Methane Gas

2.6 Additional Site Investigations

Subsequent to the Site-Wide RI, some additional investigation and characterization was necessary, resulting in several RIs and Feasibility Studies (FSS) for individual the individual site OUs.

3.0 REMEDIAL OBJECTIVES

The objectives of the response actions at the Sand Creek Site were to protect human health and the environment and to restore the Site for industrial re-development. These objectives

consisted of four primary goals as follows:

- to reduce the risk to industrial workers exposed to soil through ingestion or inhalation so that they would not suffer health problems;
- to ensure that a child walking or playing while trespassing onto the Site would not have health problems resulting from area soils;
- to ensure that gases generated from the Landfill would not migrate off-site and cause explosions or otherwise endanger health; and
- to reduce the contamination source area for groundwater absorption so that "potential groundwater use" would be possible.

Where appropriate, selected remedies utilized permanent solutions and alternative treatment technologies to the maximum extent practicable and satisfied the statutory preference for treatment as a principal element. Pertinent decision documents for individual OUs are listed in Table 2.

Table 2: Decision Documents for Sand Creek Industrial Superfund Site

OU	Decision Document	Date
#1	<i>Record of Decision</i>	September 29, 1989
#1	<i>Explanation of Significant Differences</i>	September 8, 1993
#2	<i>Record of Decision</i>	June 30, 1993
#3/#6	<i>Record of Decision</i>	June 30, 1993
#4	<i>Record of Decision</i>	April 7, 1994
#5	<i>Record of Decision</i>	September 28, 1990
#5	<i>Amendment to Record of Decision</i>	September 8, 1993

4.0 RESPONSE ACTIONS

4.1 Operable Unit 1 (OU 1):

Other than an estimated 1,000 cubic yards of surface soils highly contaminated with Halogenated Organic Compounds (HOCs), OU 1 remediation focused on treatment of subsurface soils contaminated with Volatile Organic Compounds (VOCs). The surface soils were treated through excavation and off-site incineration and the subsurface soils were treated with Soil Vapor Extraction (SVE).

During 1991 and 1992, EPA removed approximately 2000 cubic yards of debris, including four buildings, four rail cars, two concrete tanks, and 13 steel tanks. This debris was removed by a licensed hauler and disposed in permitted landfills. Between September 1993 and April 1994 EPA utilized SVE to remove over 176,000 pounds of VOC contamination from the OU1 soils, of which approximately 3,250 pounds were specified contaminants of concern for OU 1.

There were no aspects of the RA for OU 1 which failed to conform to the remedial objectives as specified in the ROD and the ESD for OU 1.

4.2 Operable Unit 2 (OU 2):

The acid pits on the LCC property were neutralized on three occasions in the late 1970s and early 1980s. Because of these cleanup activities, in addition to low levels of contaminants of concern at the site, it was determined that no significant risk to human health or the environment existed at OU 2. Therefore, a "no further action" alternative was adopted, and no RA took place at OU 2.

4.3 Operable Units 3/6 (OUs 3/6):

On August 15, 1990, EPA signed an *Unilateral Administrative Order (UAO)* for a removal action for OU 6 which became effective August 25, 1990 (Docket No. CERCLA-VIII-90-20). The UAO addressed risks associated with gaseous emissions from the Landfill. On December 24, 1990, EPA issued an *Action Memorandum* for an Enforcement-Lead Removal Action. The Action Memorandum required the installation and operation of a gas-collection system, and installation and maintenance of a security fence and a vegetative cover for the Landfill. The LFGES system began operating on May 31, 1991. An EPA approved *Final Removal Action Report* for OU 6 (October 31, 1991) documented that the removal action was

completed in accordance with the requirements of the Action Memorandum.

The selected remedies for OUs 3 and 6 were described in a single ROD since OUs 3 and 6 are both associated with the 48th and Holly Landfill. Remediation of the Landfill focused on methane gas removal, institutional controls, and monitoring.

The first requirement of the ROD was to continue operation and maintenance of the Landfill Gas Extraction System (LFGES) installed by the PRPs in 1991 under the August, 1990 UAO. The LFGES collects methane gas through underground pipes and destroys it in an enclosed flare system. Landfill gas monitoring (for methane) began in 1991. In addition to methane gas removal, the ROD required institutional controls and monitoring of Landfill gas and groundwater. A *Unilateral Administrative Order* for Remedial Design/Remedial Action for OUs 3/6 (Docket No. CERCLA-VIII-93-27) was signed on January 21, 1994 and became effective on January 31, 1994. This UAO addressed completion of Remedial Design and Remedial Actions for the remedy described in the June 1993 ROD. Groundwater monitoring began in September, 1994.

An EPA approved *Final Remedial Action Completion Report (RACR)*, dated November 22, 1994, documented that the remedial action for OUs 3/6 was completed in accordance with the requirements of the June 30, 1993 ROD. The RACR and all remedial actions were completed by Potentially Responsible Parties (PRPs).

All RAs completed at the Site for OUs 3/6 have conformed to the remedial objectives as specified in the ROD for OUs 3/6. However, as specified in the OUs 3/6 ROD, future groundwater response actions at the Site may be required if it found that groundwater contamination is still present at the Site and determined to be attributable to the Landfill. This determination will not be made until remediation of the adjacent Chemical Sales Company Superfund Site is concluded.

4.4 Operable Unit 4 (OU 4):

Remediation of OU 4 focused on institutional controls and monitoring of Site-Wide groundwater. The RA also included removal of a Light Non-Aqueous Phase Liquid (LNAPL) contamination plume.

Institutional controls for OU4 are being implemented by the State of Colorado in conjunction with local governments. These controls will minimize exposure to contaminated groundwater in this area by preventing any use of highly contaminated groundwater and limiting general groundwater use to non-domestic purposes only.

EPA conducted quarterly groundwater monitoring and semi-annual surface water monitoring during the period of September, 1994 to June, 1995 for OU4. Monitoring was specified as a primary objective in the April, 1994 ROD. At the time of the writing of this report, the sampling results indicate that groundwater contamination is isolated on-site and that (due to the low permeability of the subsurface soils) it is not migrating off-site. These results support the decisions documented in the ROD which identified the primary goals of OU 4 response actions as institutional controls and monitoring.

A secondary goal identified in the April, 1994 ROD was to recover a portion of a light non-aqueous phase liquid (LNAPL) plume located in the northwest portion of the Site. The removal was to be accomplished by utilizing Dual Vapor Extraction (DVE). The equipment used for DVE was fundamentally the same as that used for the SVE treatment of OU 1 soils. EPA operated the DVE system from October, 1994 to April, 1995. During this time, only 6000 gallons of LNAPL was recovered, far below the estimated total volume of the LNAPL. These data show that even with an active "pump and treat" system, the LNAPL contamination is very immobile. The design and results of this system can be utilized by EPA in the future if contaminants are determined to be migrating off-site and if an active pump and treat system is deemed to be necessary to contain the contaminant migration.

An EPA approved *Remedial Action Completion Report (RACR)*, dated September 20, 1995, documents that the remedial action for OU 4 was completed in accordance with the remedial action objectives specified in the April, 1994 ROD.

4.5 Operable Unit 5 (OU 5):

Remediation for OU 5 focused on excavation and Low Temperature Thermal Treatment (LTTT) of surface and shallow soils (soils from ground level to a depth of five feet) contaminated with pesticides and VOCs.

A total volume of 8,254 cubic yards of soil was excavated. The excavated soil was remediated between June 28 and July 29, 1994 using LTTT. After backfilling with the treated soil, a cover crop was planted to restore the Site and to help prevent erosion.

An EPA approved *Remedial Action Completion Report (RACR)*, dated October 28, 1994 documents that the remedial action for OU 5 was completed in accordance with the requirements of the September 8, 1993 ROD Amendment, with one exception. The target cleanup level for arsenic (12.7 mg/kg) was not achieved in a majority of post-remediation confirmatory soil samples obtained from stockpiles of 100 cubic yards of treated soil. The average post-remediation concentration of arsenic in the treated soil was 24.9 mg/kg.

Because the arsenic target level was not achieved, EPA performed a post-remediation risk assessment in order to determine if the Site conditions were protective of human health and the environment. Since all other contaminants of concern were reduced below their target action levels, the maximum overall carcinogenic risk at the Site, even with the higher concentrations of arsenic, was calculated to be 2×10^{-5} . This level falls well within the EPA's acceptable risk range of 10^{-4} to 10^{-6} . Therefore, the post-remediation condition of OU 5 is considered to be protective of human health and the environment. Thus, EPA does not plan any further remedial activities at this area of the Site. It should be noted that the risk level calculated was based on the assumption of industrial/commercial use of the Site. Should the zoning for the area ever change to residential, the protectiveness of the remedy would need to be reassessed.

During the pre-final inspection of the Site, which occurred on August 22, 1994, EPA investigators discovered additional wastes in the area of OU 5. These wastes consisted of soils contaminated with pesticides and oil, drums containing pesticides and laboratory chemicals, and contaminated building debris and asbestos. As these wastes posed a high risk, EPA initiated a time-critical removal action to respond to the situation.

The removal response activity was carried out from October, 1994 to July, 1995. This activity consisted of the removal and offsite disposal of: 188 drums containing various chemicals and pesticides, 7 compressed gas cylinders containing toxic and non-toxic gases, 2400 cubic yards of oily and pesticide contaminated soils, approximately 240 cubic yards of asbestos and oil contaminated soils, 40 cubic yards of contaminated building debris, and 30 cubic yards of RCRA contaminated drums and debris. An additional 600 gallons of Number 36 waste fuel oil was also removed and sent offsite to a recycling facility. This area of the site was regraded and reseeded following the completion of all removal and disposal activities. The *Final Pollution Report* (U.S. EPA, September 1995) documents all removal activities performed and disposition of the wastes sent off-site.

4.6 Pre-Final Inspection

The pre-final inspection for the Site was conducted on August 22, 1994 with representatives of EPA and CDPHE present. A punch list was produced at this inspection which included: completion of well abandonment, removal of LNAPL, and continuance of long-term groundwater monitoring for both OU 3 and OU 4. OU 1 SVE demobilization was to be completed after the LNAPL removal was ended. Demobilization of OU 5 LTTT equipment was in progress at the time of the pre-final inspection. A *Preliminary Site Close Out Report* was signed on September 29, 1994 which documented RA

construction completion at the Site.

During the pre-final inspection of the Site EPA investigators discovered additional wastes in the area of OU 5. This discovery initiated a time-critical removal action at OU 5. For information related to the removal action, refer to the Response Actions, OU 5 section of this report.

5.0 SUMMARY OF FIVE-YEAR REVIEW

This statutory five-year review was conducted according to procedures in OSWER directives 9355.7-02 and 9355.7-02a, Structure and Components of Five-Year Reviews and Supplement. Activities for the review consisted of four primary tasks:

- Review of Site related documents
- Review of Applicable or Relevant and Appropriate Requirements (ARARs)
- Site visit and interviews
- Preparation of Five-Year Review Report

5.1 Document Review

The following Site-related documents were reviewed and analyzed for the preparation of this five-year review.

1. Site-Wide Remedial Investigation/Site Characterization Report, March 1988
2. ROD for OU 1, September 1989.
3. ESD for OU 1, September 1993.
4. ROD for OU 2, June 1993.
5. ROD for OUs 3/6, June 1993.
6. ROD for OU 4, April 1994.
7. ROD for OU 5, September 1990.

8. ROD Amendment for OU 5, September 1993.
9. Final Remedial Action Completion Report for OUs 3/6, October 1994.
10. Remedial Action Completion Report for OU 5, October 1994.
11. Preliminary Site Close-Out Report, September 1994.
12. Draft Final Remedial Action Completion Report for OU 1 and OU 4, August 1995.
13. Amendment #4 to the Superfund State Contract for the Sand Creek Industrial Site; OU 1, OU 4, OU 5, effective June 24, 1995.
14. Applicable or Relevant and Appropriate Requirements Analysis for the Sand Creek Superfund Site, September 1995.

Document analysis indicated that all of the actions taken at the Site are in compliance with the remedial action objectives specified in the Site's decision documents and amendments as applicable.

5.2 ARAR Review

As an integral part of this five-year review, a detailed assessment of ARARs identified in the Site's OU-specific decision documents was conducted. The primary purpose of this review is to determine if any newly promulgated or modified requirements of federal and state environmental laws have changed the protectiveness of the remedies implemented at the site. The ARARs evaluated under this five-year review are documented in detail in a September, 1995 report entitled *Applicable or Relevant and Appropriate Requirements Analysis for the Sand Creek Superfund Site*. A summary of the major ARARs evaluated under this review includes the following:

Federal

- Resource Conservation and Recovery Act (RCRA)
 - RCRA requirements (Title 40 Code of Federal Regulations (CFR) Part 268 Subpart C (prohibition on land disposal) and Subpart D (treatment standards) set waste-specific

prohibition and treatment standards to be used in the land disposal of contaminated soils, residuals, and debris. This RCRA standard was an action-specific ARAR for site and was complied with during remedial activities at the site. There have been no changes to this ARAR since the RODs were signed and all current operation and maintenance activities at OU 3/6 are in compliance with the current regulations. Remedial actions are completed at other portions of the site and therefore not affected by this requirement.

- Safe Drinking Water Act (SDWA)
 - The SDWA (40 CFR Part 141) establishes health based standards for public drinking water supply systems by setting maximum contaminant levels (MCLs) for specified inorganic and organic water contaminants. This standard is a chemical-specific ARAR for this site and the MCLs have not changed since the RODs were signed for OU3 and OU4 for this site. This standard is not an ARAR for the other OUs at the site.
- Occupational Safety and Health Act (OSHA)
 - OSHA regulates worker health and safety during remedial actions at the site. This standard was an action-specific ARAR at the site and was complied with during all activities at the site. This ARAR has not changed since the ROD was signed and all current operation and maintenance activities at OU 3/6 of this site are in compliance with existing OSHA standards. Remedial activities at other portions of the site are completed and therefore not affected by this ARAR.
- Clean Air Act (CAA)
 - The CAA national ambient air quality standards (NAAQS) (42 USC 7401 et seq.) are action-specific ARARs for the LFGES at OU 3/6 of the site. The air emissions continue to be monitored by the State of Colorado and are in compliance with these standards. This standard has not changed since the signature of the ROD and therefore does effect the protectiveness of the remedy.

State of Colorado

- The Colorado air pollution control regulations (5 Colorado Code of Regulations [CCR] Part 1001-1) are ARARs if the LFGES at OU 3/6 was classified as a major stationary source.

This ARAR has not changed and the LFGES was not nor is it currently classified as a major stationary source such and is therefore not effected by this regulation.

- RCRA Subtitle C requirements (6 CCR Part 1007-3) applies to the condensate generated from the operation of the LFGES at OU 3/6 only if it is classified as hazardous. This regulation has not changed and sampling to date has not indicated that the condensate is hazardous and therefore is unaffected by this requirement.
- Colorado solid waste disposal sites and facilities regulations (6 CCR Part 1007-2) contain requirements concerning explosive gas concentrations at solid waste disposal facilities. There have been no changes to these regulations and site monitoring activities at OU 3/6 indicate that this ARAR continues to be met.
- Colorado Interim Organic Pollutant Standards (CIOPS) for stream segments classified for aquatic life applied for OU 3/6 of the site. The CIOPS standard has not changed since the ROD was signed and the site is in compliance with this standard as indicated by the monitoring data to date.

The above mentioned ARARs are just a partial listing of the major federal and state environmental evaluated under this 5-year review. A complete analysis can be found in the above cited document. Overall, EPA found no newly promulgated or modified ARARs that would change the protectiveness of the remedies implemented at the various OUs of the Sand Creek Industrial Site. The State of Colorado and EPA will continue to monitor this site and any future ARARs changes or modifications will be reported in the next 5-year review.

5.3 Site Visit And Interviews

5.3.1 Visual Site Inspection

The site visit occurred on September 20, 1995. The remedial actions completed at the site were inspected at this time. No RAs remain to be completed at the Site. All construction undertaken at the Site is currently intact and operating as designed.

5.3.2 Community and Local Outreach

On August 15, 1995, EPA and CDHPE met with officials from the Northern Communities Coalition (NCC) to provide an overview and status of the Sand Creek Industrial Superfund Site. The NCC is a

group consisting of local government officials from Adams County, Denver County, Commerce City, Denver City and County, and Tri-County Health Department. This group represents all areas affected by activities at the Sand Creek Site. During the meeting EPA and CDHPE indicated that a five-year review is being conducted at the Site and outlined the information contained in this review. The representatives were generally pleased by the activities carried out at this Site and supported EPA on its approach. There were no major concerns or issues raised during the meeting. EPA considers that this meeting satisfies the policy requirement for community or local government involvement during completion of a Type I five-year review.

6.0 RECOMMENDATIONS

Since the writing of the RACR, a legal concern arose in the matter of Colorado Paint Company v. United States of America (No. 91 - 1622L). On April 13, 1995, a Settlement Agreement was signed which allows Colorado Paint Company (CPC) "to use and develop approximately 13 acres of the south-eastern portion of Parcel A in any manner that is consistent with State and Federal law and that is approved by local authorities, including south Adams County Fire District and the Tri-County Health Department." The exact location of the parcel was still to be determined at the time of the writing of this report. Based on the terms of the Settlement Agreement, the 13 acre parcel will no longer be maintained or monitored as part of the remediation efforts being carried out for OUs 3/6 under EPA's CERCLA actions. EPA believes that this portion of the Landfill continues to pose risks identified as existing for the entire 48th and Holly Landfill. As specified in the Settlement Agreement, however, all future development and use of this portion of the Landfill, and any risks associated with the property, must be addressed by local authorities and CPC. EPA recommends that local authorities review any pending and future development of this parcel of land very closely to ensure that protection of human health and the environment is not compromised.

Under the terms of Amendment No. 4 of the Superfund State Contract, signed on June 29, 1995, the CDPHE will takeover the lead at the site in October, 1995 and will conduct monitoring activities at the site. CDPHE will conduct groundwater and surface water monitoring at OU4 on a semi-annual basis to correspond with the groundwater monitoring events carried out at OU 3/6 by the PRPs. Reports from both PRP and State monitoring activities will be provided to EPA.

7.0 STATEMENT OF PROTECTIVENESS

The Remedial Actions performed at the Sand Creek Industrial Superfund Site remain protective of human health and the environment. No modifications or improvements to the implemented remedies are required at the current time. EPA will continue monitor the site in the future through coordination with CDPHE and the PRPs.

8.0 NEXT FIVE YEAR REVIEW -- SCHEDULE

The next five year review must be completed on or before September, 2000. The five year review will be completed for the entire site, with its primary focus on OUs 3/6 and OU 4, as these are the only operable units with hazardous substances remaining on-Site.